Appl. No. 10/030,735 Amdt. dated May 11, 2006 Amendment and Reply under 37 CFR 1.116 Expedited Procedure Examining Group 1644

#### Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

### Listing of Claims:

1-3. (Canceled)

- 4. (Previously presented) A peptide that binds α3β1 integrin, wherein said peptide consists of a sequence selected from the group consisting of FQGVLQQVRFVF (SEQ ID NO:20), FQGVLQSVRFVF (SEQ ID NO:21), acQGVLQNVRF (SEQ ID NO:22), FQGVLNNVRFVF (SEQ ID NO:24), AQGVLQNVRFVF (SEQ ID NO:25), FAGVLQNVRFVF (SEQ ID NO:26), FQGVAQNVRFVF (SEQ ID NO:27), FQGVLQNVRFVA (SEQ ID NO:28), FQGVLANVRFVF (SEQ ID NO:29), FQGVLQNVRFV (SEQ ID NO:30), QGVLQNVRFVF (SEQ ID NO:31), and FQGVLQNVRF (SEQ ID NO:32).
- 5. (Currently amended) A peptide consisting of the sequence  $R_1$ - $X_1$ - $X_2$ - $X_3$ - $X_4$ - $R_2$  or full retro-inverso sequences thereof, wherein  $X_1$  is selected from the group consisting of N and Q;  $X_2$  is V;  $X_3$  is R; and  $X_4$  is F;  $R_1$  is a hydrogen or from 1 to 6 amino acids, an acyl or an aryl group; and  $R_2$  is from 1 to 3 amino acids, a hydroxide or an amide, provided that the peptide binds  $\alpha 3\beta 1$  integrin, and wherein the  $X_1$ - $X_2$ - $X_3$ - $X_4$  portion of the sequence is eptionally-selected from the group-consisting of NVRF (SEQ ID NO:51) and or QVRF (SEQ ID NO:53).

6-9. (Canceled)

10. (Previously presented) A peptide consisting of the sequence FQGVLQNVRFVF (SEQ ID NO:6) wherein every amino acid in said sequence is a D-amino acid.

Appl. No. 10/030,735 Amdt. dated May 11, 2006 Amendment and Reply under 37 CFR 1.116 Expedited Procedure Examining Group 1644

## 11-12. (Canceled)

- 13. (Currently amended) A composition comprising a peptide according to elaim 1 claim 5 and a pharmaceutically acceptable carrier.
- 14. (Previously presented) A composition comprising a peptide according to elaim 1 claim 5 in a sterile aqueous solution.

# 15-19. (Canceled)

- 20. (Currently amended) An *in vitro* method of inhibiting adhesion of a cell expressing  $\alpha \beta \beta 1$  integrin to an extracellular matrix comprising contacting said cell with a peptide according to elaim 1 claim 5.
- 21. (Withdrawn) The method of claim 20 wherein the extracellular matrix comprises TSP1 or laminins.

## 22. (Cancel)

- 23. (Withdrawn) The method of claim 20 wherein said cell comprises an epithelial or an endothelial cell.
  - 24. (Withdrawn) The method of claim 20 wherein said cell is a tumor cell.
- 25. (Withdrawn) The method of claim 20 wherein said cell is a breast carcinoma cell or a small cell lung carcinoma.

Appl. No. 10/030,735 Amdt. dated May 11, 2006

Amendment and Reply under 37 CFR 1.116 Expedited

Procedure Examining Group 1644

26. (Currently amended) An in vitro method of inhibiting  $\alpha \beta \beta$ 1 integrinmediated cell motility, comprising contacting a cell with a peptide according to elaim-1 claim 5.

## 27. (Canceled)

- 28. (Withdrawn) The method of claim 26 wherein the cell is an epithelial cell, an endothelial cell or a malignant cell.
- 29. (Currently amended) An in vitro method of inhibiting proliferation of endothelial cells, comprising contacting said cells with a peptide according to elaim 1 claim 5.
- 30. (Currently amended) An in vitro method of inhibiting proliferation of small cell lung carcinoma cells, comprising contacting said cells with a peptide according to claim 2 claim 5.

## 31-45. (Canceled)

- 46. (Previously presented) A peptide consisting of the sequence  $R_1$ - $X_1$ - $X_2$ - $X_3$ - $X_4$ - $R_2$  or full retro-inverso sequences thereof, wherein  $X_1$  is D;  $X_2$  is V;  $X_3$  is R; and  $X_4$  is F;  $R_1$  is a hydrogen or from 1 to 6 amino acids, an acyl or an aryl group; and  $R_2$  is 2 or 3 amino acids, a hydroxide or an amide, provided that the peptide binds  $\alpha 3\beta 1$  integrin.
- 47. (Previously presented) The peptide according to claim 46 consisting of the sequence FQGVLQDVRFVF (SEQ ID NO:19).
- 48. (Previously presented) The peptide of claim 46, wherein the peptide contains the sequence DVRF (SEQ ID NO:54) and is up to 12 amino acids in length.

Appl. No. 10/030,735 Amdt, dated May 11, 2006

Amendment and Reply under 37 CFR 1.116 Expedited

Procedure Examining Group 1644

- 49. (Previously presented) The peptide of claim 46 wherein R<sub>1</sub> is a peptide consisting of the sequence selected from the group consisting of FOGVLO (SEO ID NO:13). FAGVLO (SEO ID NO:14), FOGVAO (SEO ID NO:15), FOGVLA (SEO ID NO:16), and FQGVLN (SEO ID NO:17).
- 50. (Previously presented) The peptide of claim 46 that contains at least one Damino acid
- (Previously presented) A composition comprising a peptide according to claim 46 and a pharmaceutically acceptable carrier.
- 52. (Previously presented) A composition comprising a peptide according to claim 46 in a sterile aqueous solution.
- 53. (Previously presented) A retro-inverso synthetic peptide consisting of the amino acid sequence, from C-terminal (left) to N-terminal (right): ri- R'1-D-V-R-F-R'2, wherein ri denotes a retro-inverso peptide sequence and all amino acids are D amino acids and D-V-R-F is SEQ ID NO:54; R'1 is a hydrogen or from 1 to 6 amino acids, a hydroxide or an amide; and R'2 is 2 or 3 amino acids, a hydroxide or an amide, provided that the peptide binds α3β1 integrin.
- 54. (Previously presented) The peptide of claim 46, wherein the peptide contains the sequence DVRF (SEQ ID NO:54) and is up to 12 amino acids in length.